

The following is a complete listing of all claims in the application, with an indication of the status of each:

Listing of claims:

- 1 1 (Currently amended). A detection device for detecting ejection condition of
2 an ejection member of a drop-on-demand type inkjet recording device, the
3 detection device comprising:
4 a controller that controls the ejection member to eject a refresh ink
5 droplet;
6 a collector that collects the refresh ink droplet;
7 a ~~reflection~~ deflection means for ~~reflecting~~ deflecting the refresh ink
8 droplet such that the deflected ~~reflected~~ refresh ink droplet impinges on the
9 collector; and
10 a detecting means for detecting an ejection condition of the ejection
11 member based on the refresh ink droplet.
- 1 2 (Original). The detection device according to claim 1, wherein the controller
2 selectively controls the ejection member to eject a recording ink droplet at
3 predetermined timings onto a recording medium, thereby forming a recording
4 dot on the recording medium, and the controller controls the ejection member
5 to eject the refresh ink droplet at a timing between the predetermined timings.
- 1 3 (Original). The detecting device according to claim 1, wherein the detecting
2 means is provided common to all of a plurality of nozzles formed in the
3 ejection member, and the controller controls the ejection member to eject the
4 refresh ink droplet from the plurality of nozzles at different timings.

1 4 (Original). The detecting device according to claim 1, wherein the detecting
2 means includes a detector that detects a charging state of the refresh ink
3 droplet.

1 5 (Original). The detecting device according to claim 4, wherein the detector
2 includes an induced current detecting electrode provided near a trajectory of
3 the refresh ink droplet and a current detector that detects an electric current
4 generated in the induced current detecting electrode.

1 6 (Original). The detecting device according to claim 1, wherein the detecting
2 means includes an electric current detector that detects an electric current
3 which flows through the collector when the refresh ink droplet impinges on
4 the collector.

1 7 (Original). The detection device according to claim 1, wherein the detecting
2 means includes a wetness detecting electrode disposed inside the collector and
3 a detector that detects a clinging condition of the refresh ink droplet that clings
4 on the wetness detecting electrode.

1 8 (Original). The detecting device according to claim 7, wherein the detector
2 detects the clinging condition by detecting change in electric resistance
3 between the wetness detecting electrode and the collector.

1 9 (Currently amended). The detecting device according to claim 1, wherein the
2 detecting means includes an emitting member that emits a light flux that
3 passes through a trajectory of the refresh ink droplet, a receiving member that
4 receives the light flux emitted from the emitting member, and a detector that
5 detects a shielding condition in which the light flux is shield shielded by the
6 refresh ink droplet that flies along the trajectory.

1 10 (Original). The detecting device according to claim 1, wherein the collector
2 and the deflection means are formed integral with each other.

1 11 (Currently amended). An inkjet recording device comprising
2 an ejection member for ejecting a refresh ink droplet;
3 a controller that controls the ejection member to eject the refresh ink
4 droplet;
5 a collector that collects the refresh ink droplet;
6 a ~~reflection~~ deflection means for ~~reflecting~~ deflecting the refresh ink
7 droplet such that the ~~reflected~~ deflected refresh ink droplet impinges on the
8 collector; and
9 a detecting means for detecting an ejection condition of the ejection
10 member based on the refresh ink droplet.

1 12 (Original). The inkjet recording device according to claim 11, wherein the
2 ejection member further ejects a recording ink droplet onto a recording
3 medium, thereby forming a recording dot on the recording medium, and the
4 controller selectively controls the ejection member to eject the recording ink
5 droplet at predetermined timings and to eject the refresh ink droplet at a
6 timing between the predetermined timings.

1 13 (Original). The inkjet recording device according to claim 11, wherein:
2 the ejection member is formed with a plurality of nozzles through
3 which refresh ink droplets are ejected;
4 the detecting means is provided common to all the plurality of nozzles;
5 and
6 the controller controls the ejection member to eject the refresh ink
7 droplet from the plurality of nozzles at different timings.

1 14 (Original). The inkjet recording device according to claim 11, wherein the
2 detecting means includes a detector that detects a charging state of the refresh
3 ink droplet.

1 15 (Original). The inkjet recording device according to claim 14, wherein the
2 detector includes an induced current detecting electrode provided near a
3 trajectory of the refresh ink droplet and a current detector that detects an
4 electric current generated in the induced current detecting electrode.

1 16 (Original). The inkjet recording device according to claim 11, wherein the
2 detecting means includes an electric current detector that detects an electric
3 current which flows through the collector when the refresh ink droplet
4 impinges on the collector.

1 17 (Original). The inkjet recording device according to claim 11, wherein the
2 detecting means includes a wetness detecting electrode disposed inside the
3 collector and a detector that detects a clinging condition of the refresh ink
4 droplet that clings on the wetness detecting electrode.

1 18 (Original). The inkjet recording device according to claim 17, wherein the
2 detector detects the clinging condition by detecting change in electric
3 resistance between the wetness detecting electrode and the collector.

1 19 (Currently amended). The inkjet recording device according to claim 11,
2 wherein the detecting means includes an emitting member that emits a light
3 flux that passes through a trajectory of the refresh ink droplet, a receiving
4 member that receives the light flux emitted from the emitting member, and a

- 5 detector that detects a shielding condition in which the light flux is shield
6 shielded by the refresh ink droplet that flies along the trajectory.
- 1 20 (Original). The inkjet recording device according to claim 11, wherein the
2 collector and the deflection means are formed integral with each other.